Funding Ergonomic Health Hazard Interventions

Force Health Protection Conference

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POC: Kate Neufeld
Katharine.Neufeld@apg.amedd.army.mil
(410) 436-5476

What’s the problem?

- *Inadequate* funding for ergonomic interventions

Why is it important?

- $1M spent on new ergonomic claims in FY02
- $39M spent on existing ergonomic claims in FY02
- Equivalent to:
  - Salary for 540 GS-12 employees/year
  - 540 man-years/year

Why don’t interventions get funded?

- MACOMs pay Workers’ Compensation “off the top”
- Each Installation receives notice of Workers’ Compensation expenses incurred
- Installations are *not* billed for these expenses
- No incentive to reduce Workers’ Compensation costs

Short-Term Solution

- Create a political incentive for Installations to fund interventions:
  - Align metrics with business practices
  - Track the status of recommendations made by Industrial Hygiene
  - Aggregate and categorize those that are *not* implemented
  - Perform business case analyses

Short-Term Solution (cont'd)

- Present business case analyses to TSG & DASA (ESOH)
- Engage TSG & DASA (ESOH) to advocate Installation Management Agency or MACOM for funding interventions

Industrial Hygiene Mission

Anticipate, Recognize, Evaluate and Control Exposures

- Demonstrate mission accomplished
  - Align performance metrics with business practices:
    - % Basic Characterizations Completed
    - % Basic Characterizations that included a basic ergonomic assessment
    - % Detailed ergonomic exposure assessments completed
    - % Recommendations implemented by installation
    - % Recommendations *not* implemented by installation

Business Case Analysis: Top 20 Office Job Titles for CTS

- Population
  - Office Worker defined by OPM job title
    - 60 job titles
      - Accountant
      - Statistical Assistant
  - Total Count of Office Workers = 13,000
- 1100 Old Cases
- 520 New Cases
- Total Medical Costs = $3.1M
- Total Compensations Costs =$4.3M

CTS Intervention

- Target ergonomic assessments for high risk office job titles
- Purchase ergonomic office equipment
- Provide contract case management for claims

Parameters of Business Case Analysis

- Costs
  - Average Cost of Ergonomic Assessment per Case
    - $31/hr x 8hrs x 1.26 = $310 per case

Costs (cont'd)

- Cost Ergonomic Office Equipment for 13,000 people
  - Year 1: $850 per person or $11M
    - Chair = $450
    - Keyboard = $100
    - Adjustable Keyboard Tray = $200
    - Mouse = $100
  - Not everyone needs each piece of equipment
    - 25% of $11M = $2.8M or $210 per person
  - Years 2-4: $250K equipment sustainment budget

Costs (cont'd)

- Medical Case Management for Top 20 Office Job Titles or 13,000 people
  - Years 1-4: Approximately $390,000 per year
    - Based on workload calculation

      +2 hrs x 520 new cases x .75
      +30hrs x 520 new cases x .25
      + 15 hrs x 144 periodic roll cases
      + 6 hrs x 96 partial wage-earning capacity cases
      + 6 hrs x 64 no wage-earning capacity
  - Total Hours = 7800 hrs/yr x $31/hr x 1.6

Costs (cont'd)

- Expected costs per CTS claim
  - Average medical cost per = $1900
  - Average compensation cost = $2600

Expected Benefits

- Year 1: 10% decrease in CTS claims
- Years 2-4: 15% decrease per year
- Net Present Value (NPV): $2.6M
- Return-on-Investment (ROI): 52%
- Payback Period: 3.3 years

Calculating Benefits

- Return On Environmental Health & Safety Investments (ROEHSI) software
  - Developed by Organization Resources Councilors, Navigant Consulting and Fortune 500 Companies
    - ALCOA
    - Dow Chemical Company
    - Eli Lilly and Company
    - IBM & others

ROEHSI 2.0.2

File Options Move to Top

Clone of CivCarpTunFY02_ <-- Analysis Name | Step1: Describe | Step 2: Set Up | Step 3: Analyze | Step 4: Recommend | Help

- Focus of Opportunity
- Explore Alternatives
- Parameters
- General Assumptions
- Benefits and Drawbacks
- Number of Incidents
- Cost of Incidents
- Incident Approach Results
- Benefits
- Regular Costs (Expenses)
- Capital Costs/Depreciation
- Decision Matrix Questionnaire
- Metrics
- Decision Matrix Results
- Recommendations

Recommendations: Clone of CivCarpTunFY02_1dayEval25%

Metrics | Decision Matrix | Calculations

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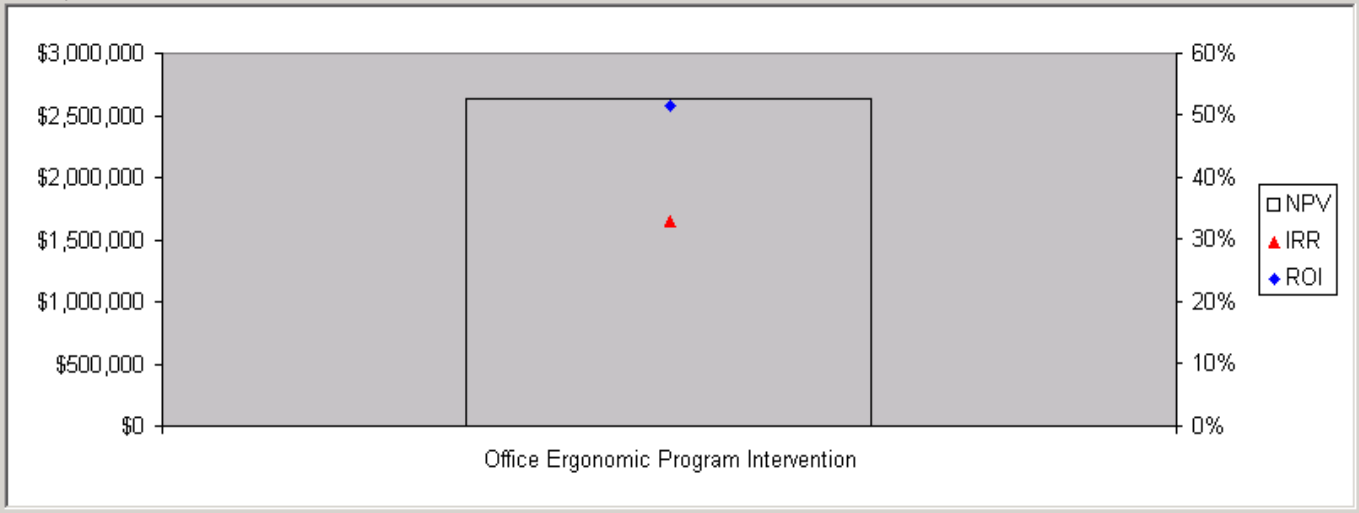
	Ergonomic Program Interv
Net Present Value (NPV)	$2,632,516
Internal Rate of Return (IRR)	33%
Return on Investment (ROI)	52%
Discounted Payback Period	3.3 years
Production Equivalent Units	n/a
Impact on Unit Cost	n/a
%Impact on Unit Cost	n/a

Comparative Metrics



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Calculations

- *Net Present Value*
  - Future costs & benefits in today's dollars

NPV Formula

$$NPV = \sum_{i=1}^{t} \frac{(B_i - C_i)}{(1 + (n) + r)^i}$$

where:

i = Year 1 through 4
Bi = Benefits in year (i)
Ci = Costs in year (i)

n = Inflation
r = Discount
t = 4 years

ROI Calculations

- *Return on Investment*
  - Get $0.52 for every dollar invested
- *Payback Period*
  - In 3.3 years the intervention will pay for itself

What do we do with all the information?

- Demonstrate IH Mission Fulfilled
  - Anticipate, Recognize, Evaluate and Recommend Controls for Exposures
- Create a political incentive for Installations to fund interventions:
  - Engage TSG & DASA (ESOH) to advocate Installation Management Agency or MACOM for funding interventions

Coming Soon…Quarterly Reporting of Metrics

- Memorandum from DSG/MEDCOM Chief of Staff to report the following:
  - % Basic Characterizations Completed
  - % Basic Characterizations that included a basic ergonomic assessment
  - % Detailed ergonomic exposure assessments completed
  - % Recommendations implemented by installation
  - % Recommendations *not* implemented by installation

Coming Soon…Quarterly Reporting of Metrics

- % Employees Noise Exposures above TWA 85dBA
- % Employees with Exposures above OEL who wear RPP
- % Ventilation Systems evaluated for which an improvement or repair was recommended
- % Buildings requiring more than 1 IH visit

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Questions?